

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION  
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

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Surface Water

(Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

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Ground Water

(Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE October 22, 1998	APPLICATION NUMBER G3-30109	PERMIT NUMBER	CERTIFICATE NUMBER
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NAME Public Utility District No. 1 of Pend Oreille County			
ADDRESS (STREET) P.O. Box 190	(CITY) Newport	(STATE) Washington	(ZIP CODE) 99156-0190

PUBLIC WATERS TO BE APPROPRIATED

SOURCE Three wells
TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 338	MAXIMUM ACRE FEET PER YEAR 150
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QUANTITY, TYPE OF USE, PERIOD OF USE

338 gallons per minute, 150 acre-feet per year, continuously, for municipal supply for 166 units

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL

- 1: Lot A of Abbie Acres within the SW $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
2: Lot 6 of Abbie Acres within the SW $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
3: Lot 6 of Abbie Acres within the SW $\frac{1}{4}$ SE $\frac{1}{4}$ ;

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) All being within the SW $\frac{1}{4}$ SE $\frac{1}{4}$	SECTION 4	TOWNSHIP N. 36	RANGE, (E. OR W.) W.M. 43 E.	W.R.I.A. 62	COUNTY Pend Oreille
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RECORDED PLATTED PROPERTY

LOT 1: Lot A, 2 & 3: Lot 6	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION) Abbie Acres
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Area served by Public Utility District No. 1 of Pend Oreille County, Washington.



## DESCRIPTION OF PROPOSED WORKS

Three wells, pumps and pressure distribution systems.

## DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE: Started	COMPLETE PROJECT BY THIS DATE: August 1, 2000	WATER PUT TO FULL USE BY THIS DATE: August 1, 2020
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## REPORT

### BACKGROUND

An application to appropriate public ground water was submitted by the Public Utility District No. 1 of Pend Oreille County, Washington to the Department of Ecology on October 22, 1998. The application was accepted and assigned Ground Water Application No. G3-30109. The applicant proposes to withdraw ground water from three wells in the amount of 338 gallons per minute for continuous municipal supply. The two existing points of withdrawal (wells 1 and 2) are located within Lot A and Lot 6 of Abbie Acres Preliminary Plat. The proposed well (well No. 3) will be located within Lot 6 of Abbie Acres Preliminary Plat. The place of use will be Abbie Acres Preliminary Plat, and that area between Abbie Acres and Tiger Slough and Sunvale 4<sup>th</sup> Addition, all within Section 4, T. 36 N., R. 43 E.W.M, and Sunvale Acres within Sec. 33, T. 37 N., R. 43 E.W.M.

A notice of application was duly published in accordance with RCW 90.03.280. No protests to the granting of a permit were received.

This application is categorically exempt from the provisions of the State Environmental Policy Act (SEPA) of 1971, Chapter 43.21C RCW.

### INVESTIGATION

James M. Lyerla conducted a field examination on December 22, 1998. This project is located south of the Town of Tiger, Washington on the west shore of the Pend Oreille River. The applicant holds Surface Water Certificate No. S3-01418C issued in the amount of 0.75 cubic-foot per second, (337.5 gallons per minute) 22 acre-feet per year, continuously, for community domestic supply for 65 lots. The place of use of this Certificate is the Plat of 4<sup>th</sup> Addition to Pend Oreille Sunvale Acres. The applicant intends to replace this surface water source with ground water from these three wells in order to avoid expensive filtration of the surface water source. This ground water source will cover a larger place of use than the original Surface Water Certificate and will serve an additional 15 lots within the Plat of 4<sup>th</sup> Addition to Pend Oreille Sunvale Acres.

The total service area will be described as the area served by Pend Oreille County PUD and will consist of 80 lots within the Sunvale Plat, 80 lots within the Sunvale 4<sup>th</sup> addition, and 6 lots within Abbie Acres. This permit allocates .9 acre-foot per year, per lot, for a total of 150 acre-feet per year.

The two existing wells are drilled to 90 and 120 feet in depth and penetrate a clay, sand and gravel, water table aquifer. The static water level in the completed wells is equivalent to the water level of the Pend Oreille River. Therefore, these wells are considered to be in direct hydraulic continuity with the Pend Oreille River and will be subject to the established low flow of 7700 cubic feet per second. However, a portion of this Ground Water Permit is supplemental to existing surface water rights that are not subject to any low flow. Therefore, 337 gallons per minute, 22 acre-feet per year, (the equivalent of Surface Water Certificate S3-01418C) will be available in the event that regulation of this Ground Water Permit is required. During regulation, in-house use is exempt and the 22 acre-feet could be used for limited outside lawn and garden use. A flow meter will be required as a provision of this permit on all three wells in order to ensure that the quantity exempt from regulation is not exceeded during the regulation period.

The annual quantity issued on the final Certificate of Water Right will be based on flow meter records and may be reduced to that amount of water placed to full beneficial use. The number of lots may also be reduced to only those lots that have been fully developed within the 20-year development schedule.

### CONCLUSIONS

It is the conclusion of this examiner that: public ground water is available for appropriation for a beneficial use; that municipal supply is a beneficial use; that the appropriation of such water will not impair existing rights or be detrimental to the public welfare.

This application for a public ground water permit should be approved in the amount of 338 gallons per minute, 150 acre-feet per year for continuous municipal supply, subject to the following provisions:

"An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and/or WAC 508-64-020 through WAC 508-64-04 (Installation, operation and maintenance requirements attached hereto).



"The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required."

"This authorization to make use of public waters of the State is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise."

"A certificate of water right will not be issued until a final examination is made."

"Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations."

"All water wells constructed within the State shall meet the minimum standards for construction and maintenance as provided under RCW 18.104 (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells)."

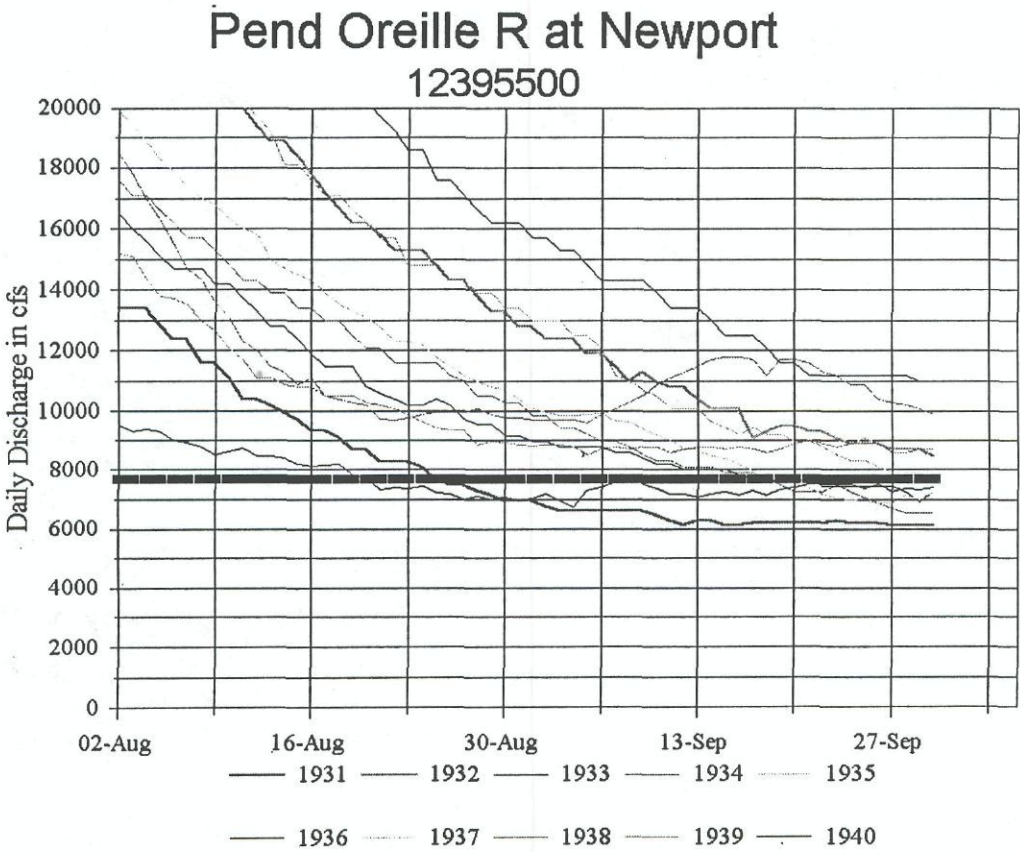
"A well log of the completed well shall be submitted by the driller to the Department of Ecology within thirty (30) days of completion of this well. This well log shall be complete and all information concerning the static water level in the completed well in addition to any pump test data shall be submitted as it is obtained."

"Use of water under this authorization shall be contingent upon the water right holder's utilization of up to date water conservation practices and maintenance of efficient water delivery systems consistent with established regulation requirements and facility capabilities."

"The Washington State Department of Fish and Wildlife (WDFW), has recommended that water rights from the Pend Oreille River be conditioned with instream flows of 7,700 cubic feet per second (cfs) on a year-round basis (as measured at the gage near Newport, Washington).

"Total withdrawal under this permit and Surface Water Certificate No. S3-01418C shall not exceed 338 gallons per minute, 150 acre-feet per year, continuously, for municipal supply for 166 lots."

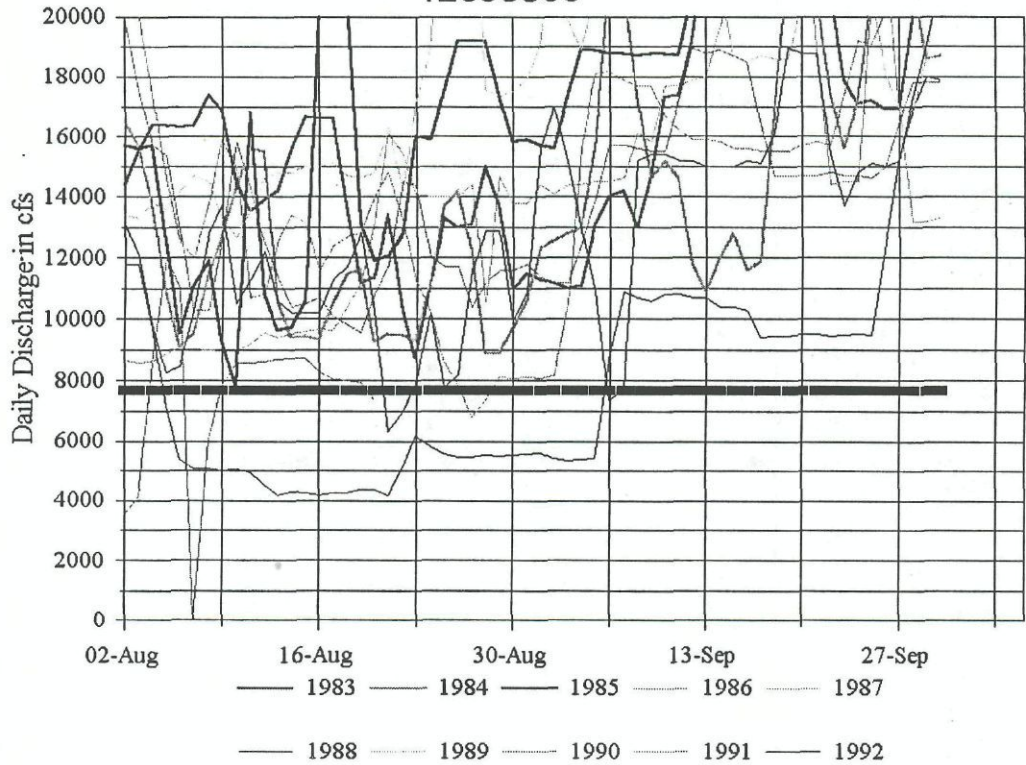
The following hydrographs for the U.S.G.S. Gage on the Pend Oreille River at Newport, Idaho (12395500) demonstrate important hydrologic characteristics of the Pend Oreille River. Before the construction of the Albeni Falls Dam, the river exhibited normal, riverine flow conditions. The first hydrograph shows the typical late summer flow regime for 10 different water years in the 1930s and early 1940s. The solid line at 7700 cfs represents WDFW's recommended instream flow value as it would have applied to the river in the 1930s. When summer flows reached their baseflow, they tended to stay down at that level for the remainder of the water year.



With the construction of the Albeni Falls dam in 1952, the character of the daily discharge changed dramatically from a riverine regime to an impounded, highly regulated, flow regime. The next hydrograph depicts the late summer, daily average discharge for a ten-year period in the 1980s through the early 1990s. The highly variable discharge data reflects the flows that result from the power generation demands that are placed on the river.

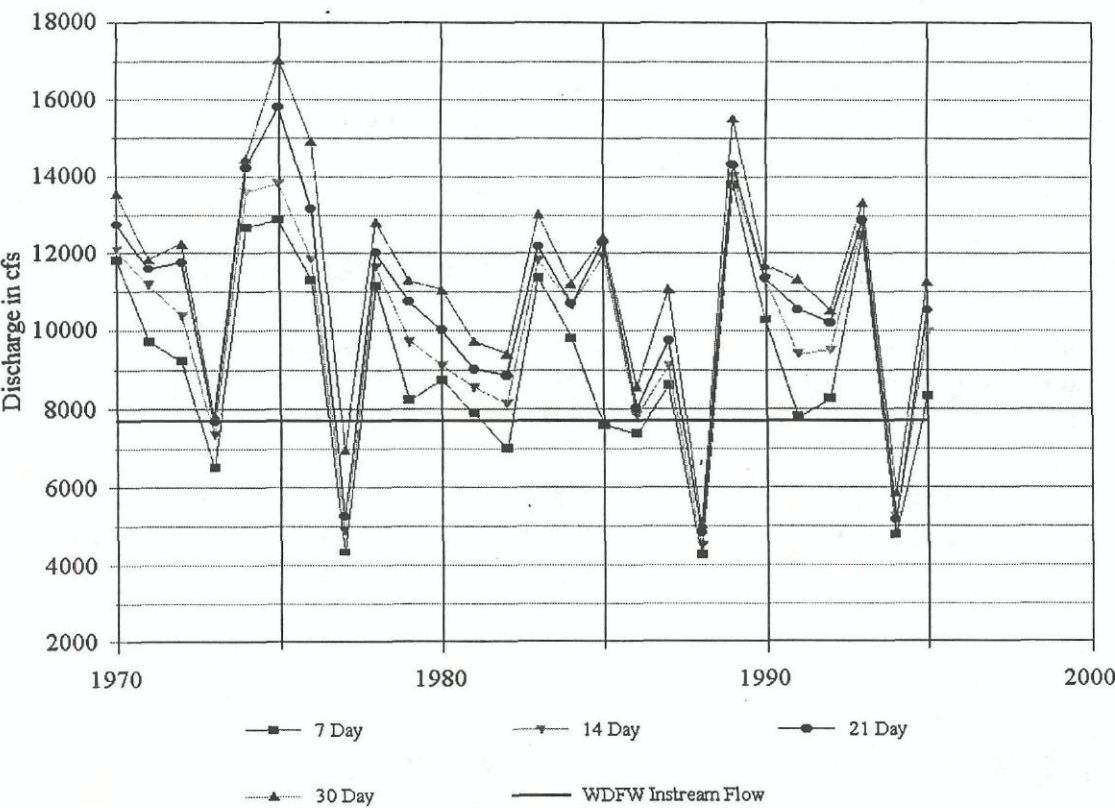


Pend Oreille R at Newport  
12395500



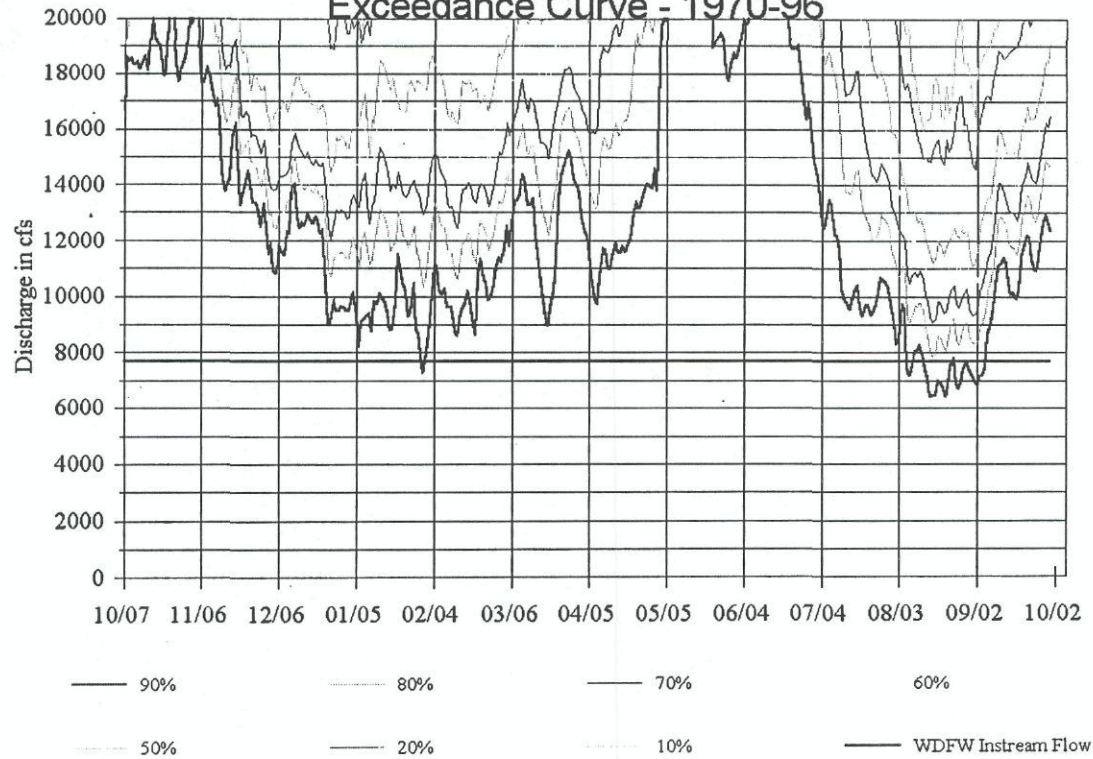
Trying to devise a methodology to implement the WDFW recommended instream flow given the current flow regime of the river requires some careful consideration of the day-to-day variability of the discharge. Given its fluctuations, just simply regulating junior water rights every time the daily average flow drops below 7700 cfs (the recommended instream flow) would be inappropriate and unworkable. Examining the data in the hydrograph indicates that the day-to-day variability is on the order of 5,000 cfs. Looking at a suite of duration frequency low flow analyses (7-day, 14-day, 21-day, and 30-day) for the 1970 through 1996 period allows us to get a better handle on when the flow in the river is truly flowing at a rate that is below the recommended instream flow. By looking at the actual daily flow data, we can see that three water years during the period 1970 – 96 exhibited sustained, low flow periods that were lower than the 7700 cfs threshold (1977, 1988, and 1994). The data from the duration frequency analysis shows that using a 14-day low flow criteria gives us the best opportunity to identify the low flow events.

Pend Oreille River Low Flow Analysis




Calculating the exceedance probability for the daily average flows for the period 1970 – 96 allows us to see how frequently (on a yearly basis) and for what duration (how many weeks during each year) the flows on the Pend Oreille River can be expected to be below the recommended instream flow. The following graph demonstrates that on average, we can expect the summer low flows in the Pend Oreille River will be above the instream flow 8 to 9 times out of ten years. During that one in ten year event when the flow in the river is below the recommended flow, the low flow will last for approximately one month (typically August).

Pend Oreille R at Newport  
Exceedance Curve - 1970-96



Therefore, this permit shall be conditioned that all diversion shall cease when the 14-day average flow in the Pend Oreille River falls below 7700 cfs (as measured at the Pend Oreille River at Newport gage) as recommended by WDFW.”

Signed at Spokane, Washington  
this 9th day of September, 1999

  
GEORGE B. SCHLENDER  
Water Resources Program  
Department of Ecology





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

4601 N. Monroe, Suite 202 • Spokane, Washington 99205-1295 • (509) 456-2926

September 9, 1999

Public Utility Dist. No. 1 of Pend Oreille County  
P.O. Box 190  
Newport, WA 99156-0190

Dear Sir or Madam:

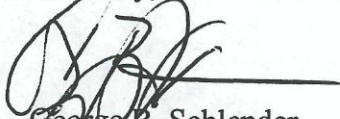
Re: Ground Water Application No. G3-30109

Enclosed please find a copy of the Department of Ecology's Report of Examination. This report constitutes our determination and order regarding the above referenced application.

Your application has been approved and a permit will be issued in accordance with the enclosed Report of Examination upon payment of the statutory fee of \$20.00. Please remit your payment by check to the Department of Ecology within thirty (30) days from receipt of this letter.

Issuance of this Report of Examination is an appealable decision under Chapter 43.21B RCW. If you would like to appeal this order and determination, you must file your appeal with the Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903 within thirty (30) days of the date of mailing of this letter and the enclosed Report of Examination. A copy of your appeal must also be sent to the Department of Ecology, Water Resources Program Appeals Coordinator, P.O. Box 47600, Olympia, WA 98504-7600 within thirty (30) days of the date of mailing of this letter and the enclosed Report of Examination.

Sincerely,

  
George B. Schlender  
Section Manager  
Water Resources Program

GBS:kt  
Enclosures